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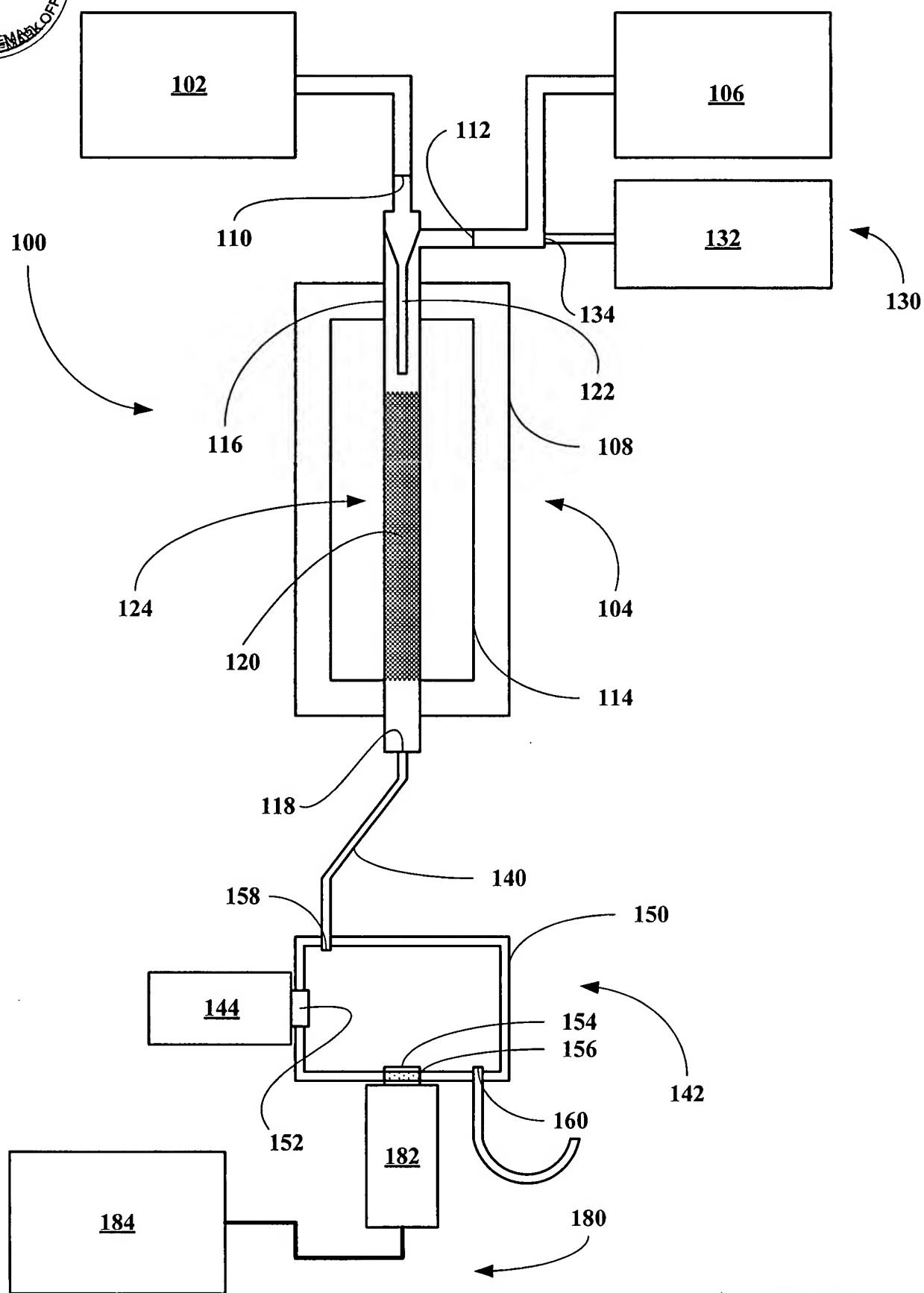


FIG. 1A

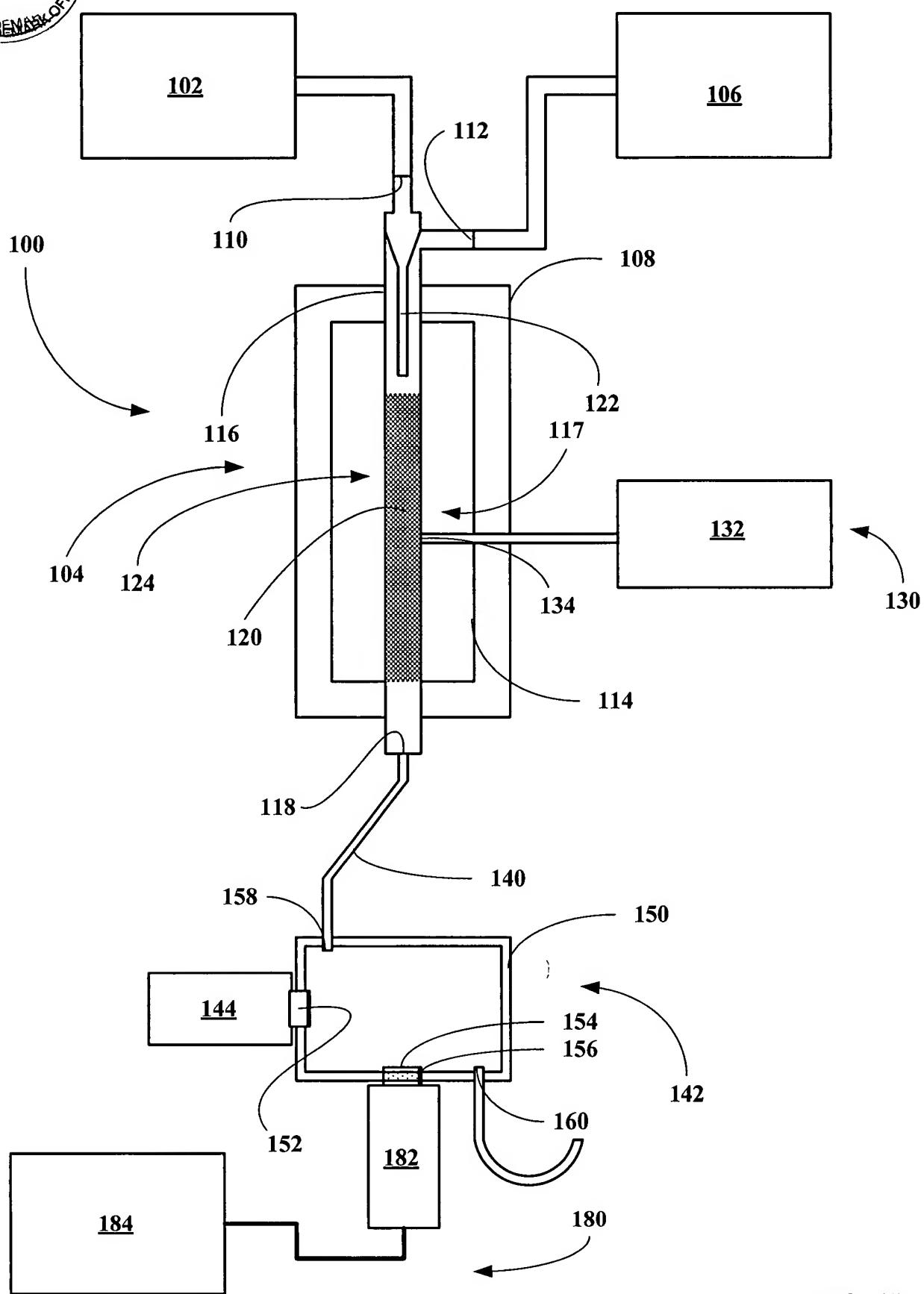


FIG. 1B



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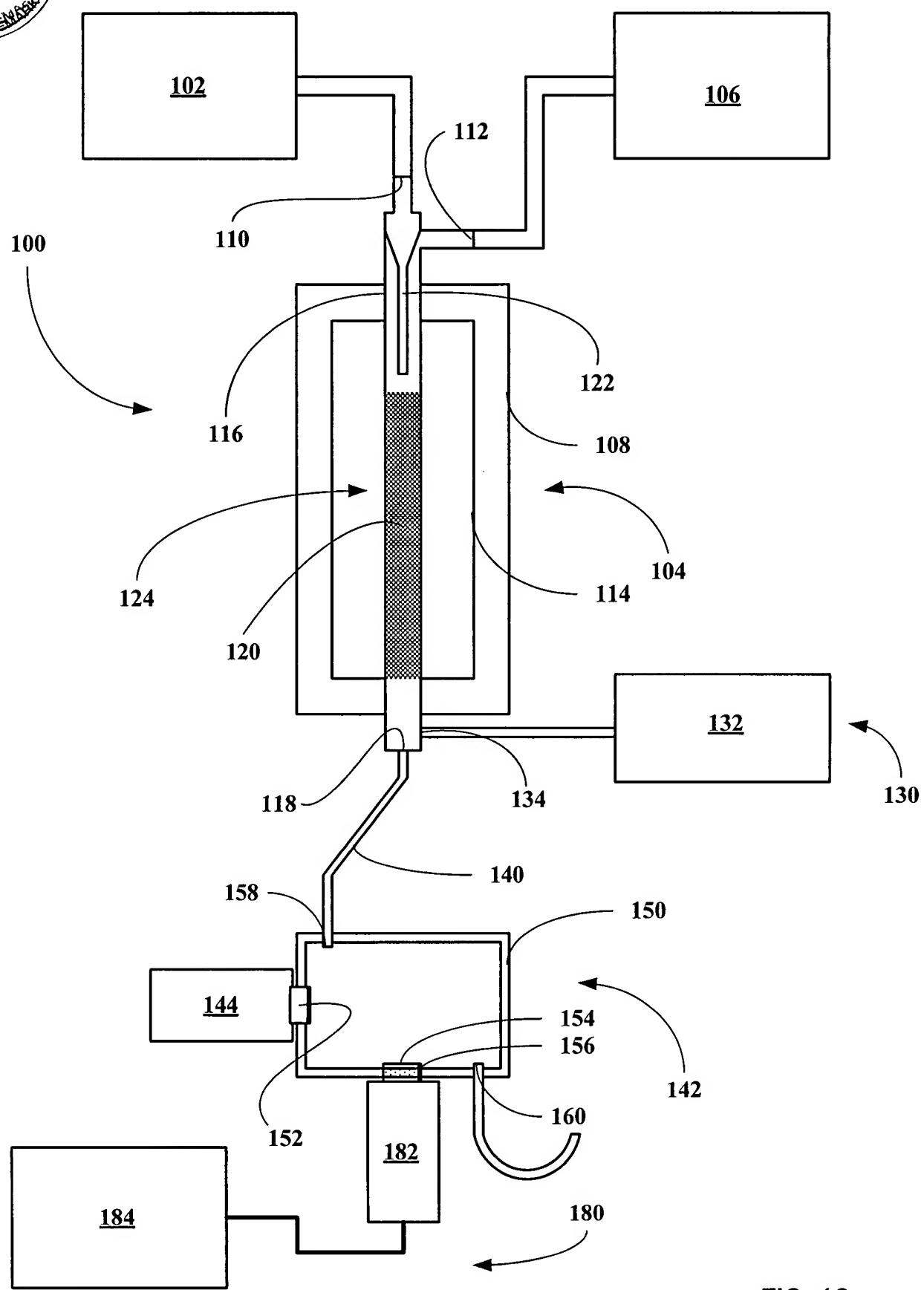
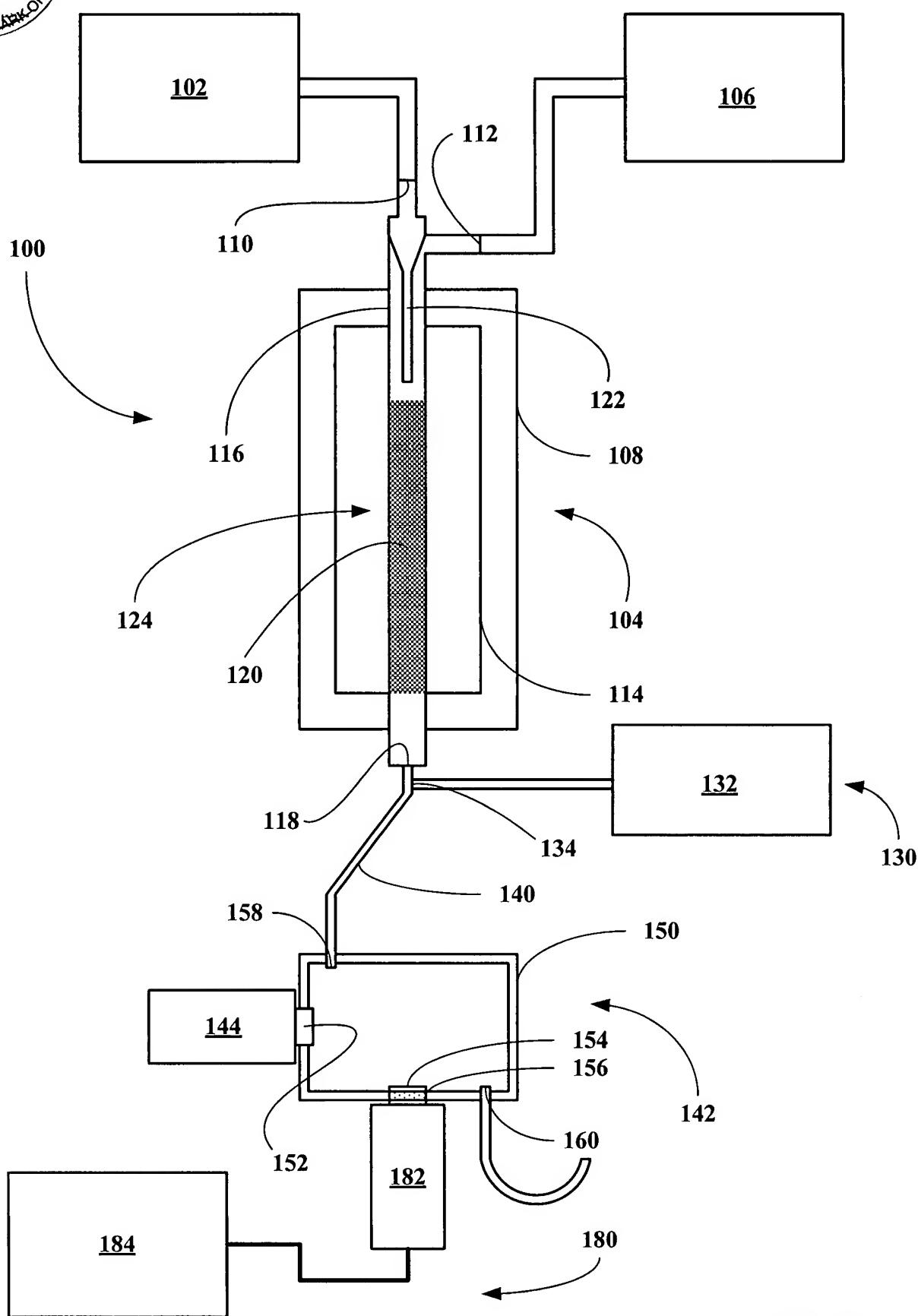


FIG. 1C



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**FIG. 1D**



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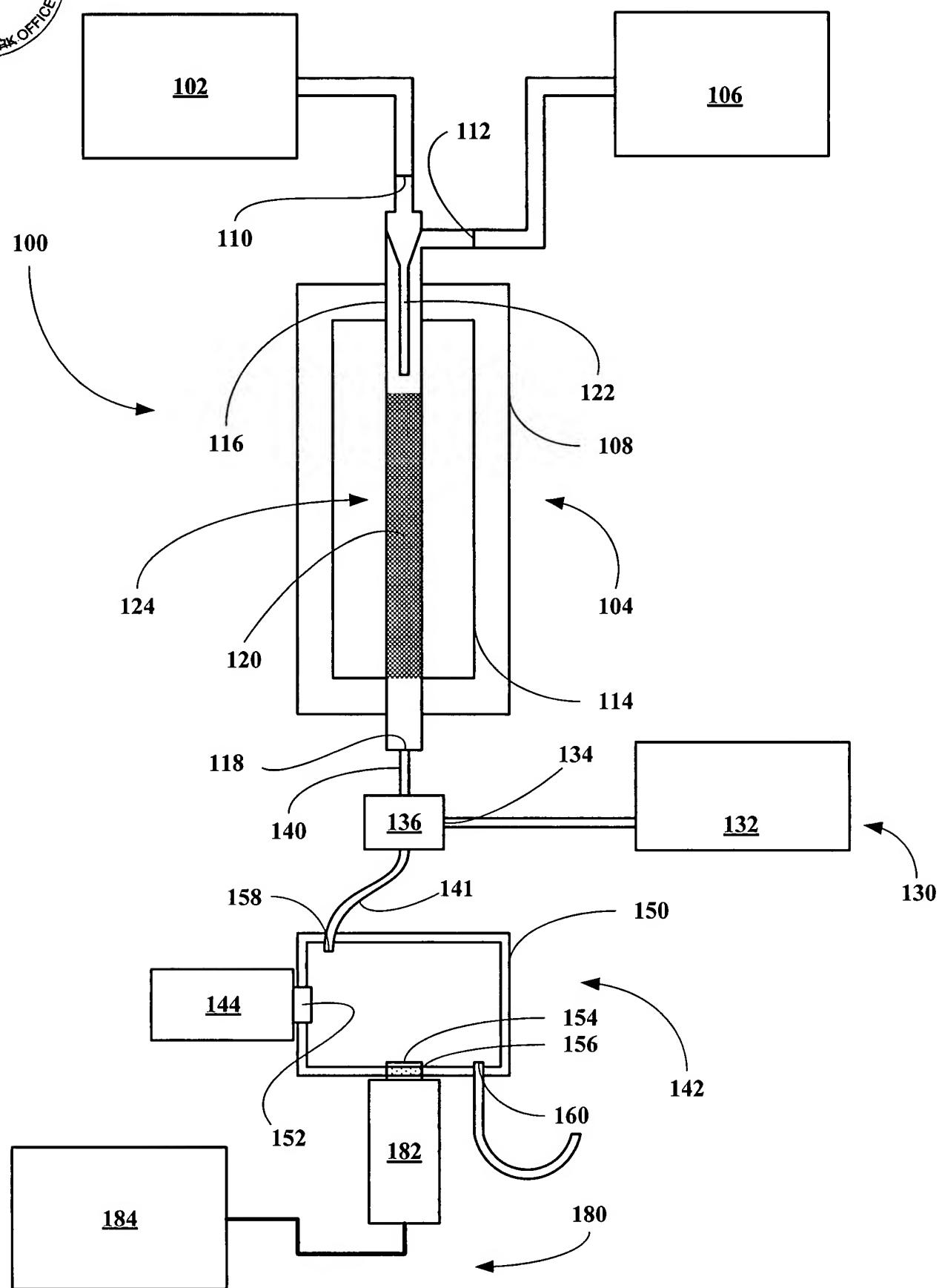


FIG. 1E



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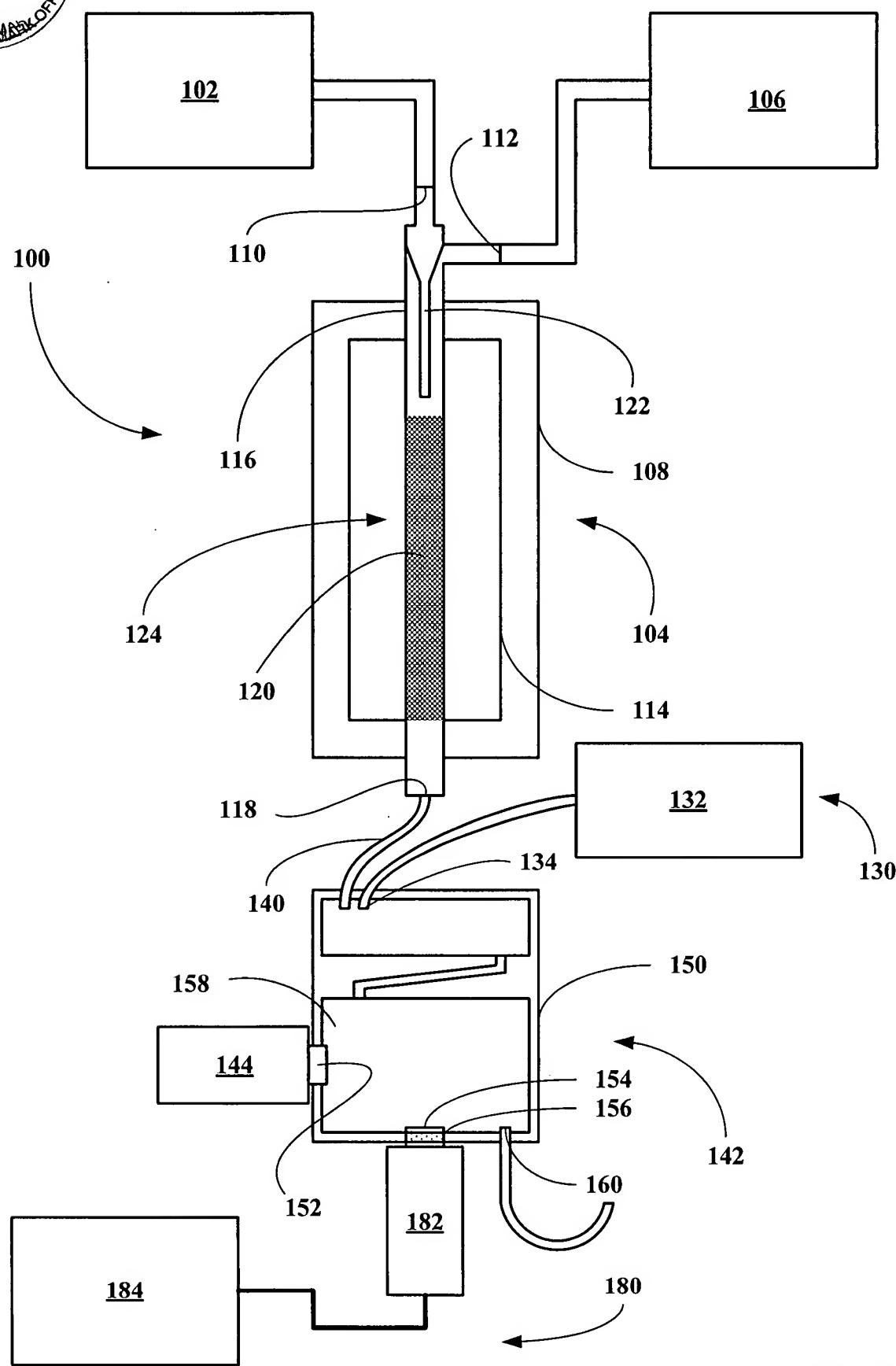


FIG. 1F



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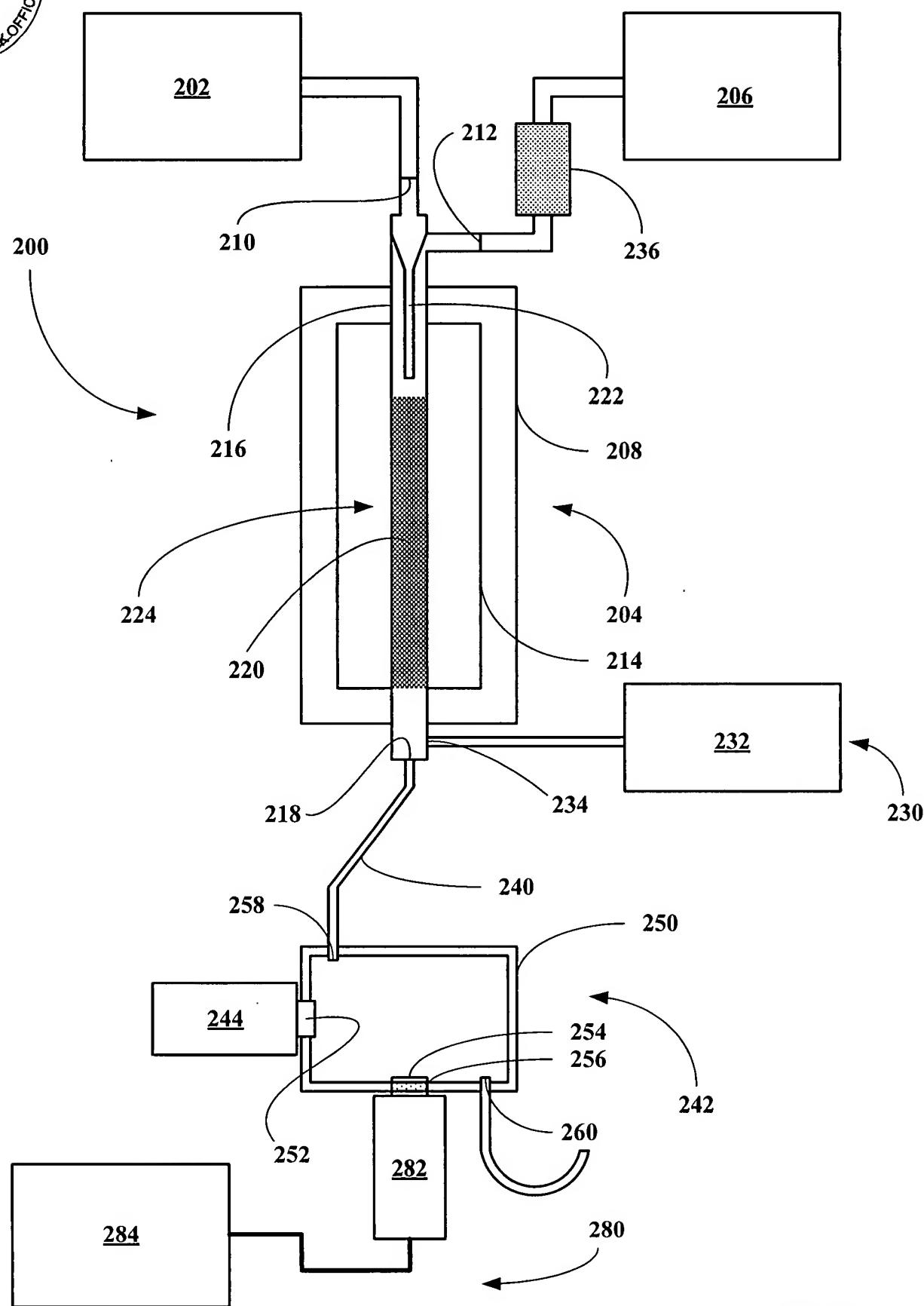


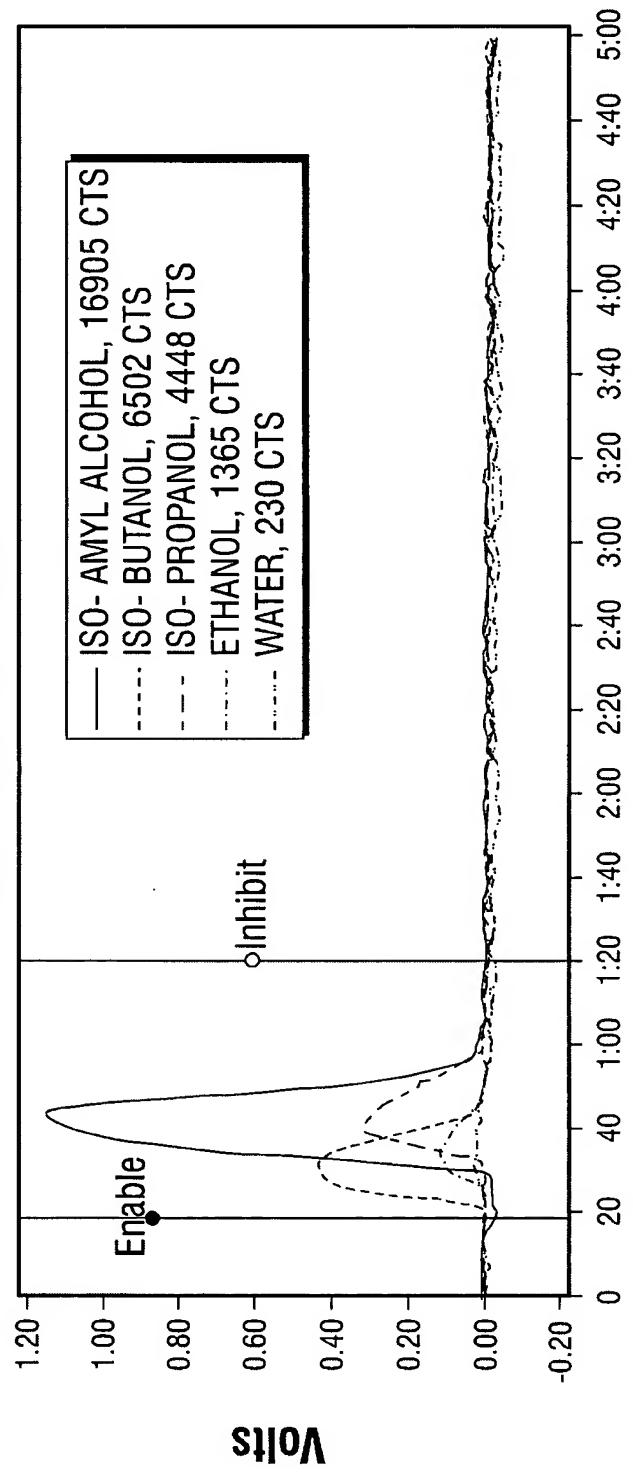
FIG. 2



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## Alcohol "Blanks" vs. Response or "Background" Counts

*Note: customer Data Injection Comparison Plot*  
 $30\mu\text{J}, 22\mu\text{J/s}, Tp = 1045, V = 660$



Volts

FIG. 3



File Name: Soctrade.sam  
 Curr. Cal File: As2551.cal  
 Orig. Cal File: As2551.cal  
 Calibration based on: Total Counts  
 Blank Correction is: OFF  
 Comments: Test UV Fluorescence Detector for Soctrade  
 Version 3.7.7 6/28/02

Name	Use S	SConc	SCnts	S%RSD	Divider	Multiplier	Time	Date	OpID	Tray #	Vial Pos
1ppm/i-C8	X	0.629	23472.3	1.9						1	1
1ppm/i-C8.1	X	0.627	23690.0		1.00	1.00	2:13PM	3/11/03	LJN		
1ppm/i-C8.2	X	0.645	24202.4		1.00	1.00	2:19PM	3/11/03	LJN		
1ppm/i-C8.3	X	0.618	23430.0		1.00	1.00	2:25PM	3/11/03	LJN		
1ppm/i-C8.4	X	0.628	23729.2		1.00	1.00	2:31PM	3/11/03	LJN		
1ppm/i-C8.5	X	0.626	23660.1		1.00	1.00	2:37PM	3/11/03	LJN		
Blank/i-C8	X	-0.151	1465.7	15.40						1	1
Blank/i-C8.1	X	-0.148	1561.1		1.00	1.00	2:44PM	3/11/03	LJN		
Blank/i-C8.2	X	-0.150	1512.4		1.00	1.00	2:50PM	3/11/03	LJN		
Blank/i-C8.3	X	-0.141	1768.8		1.00	1.00	2:56PM	3/11/03	LJN		
Blank/i-C8.4	X	-0.160	1214.1		1.00	1.00	3:02PM	3/11/03	LJN		
Blank/i-C8.5	X	-0.158	1272.2		1.00	1.00	3:08PM	3/11/03	LJN		
500ppmN-DI	X	0.744	27020.0	N/A	1.00	1.00	3:16PM	3/11/03	LJN	1	1
i-C3OH	X	-0.173	852.5	N/A	1.00	1.00	3:39PM	3/11/03	LJN	1	1
Toluene	X	-0.120	2359.6	N/A	1.00	1.00	4:15PM	3/11/03	LJN	1	1
MeOH	X	-0.190	350.5	N/A	1.00	1.00	4:48PM	3/11/03	LJN	1	1

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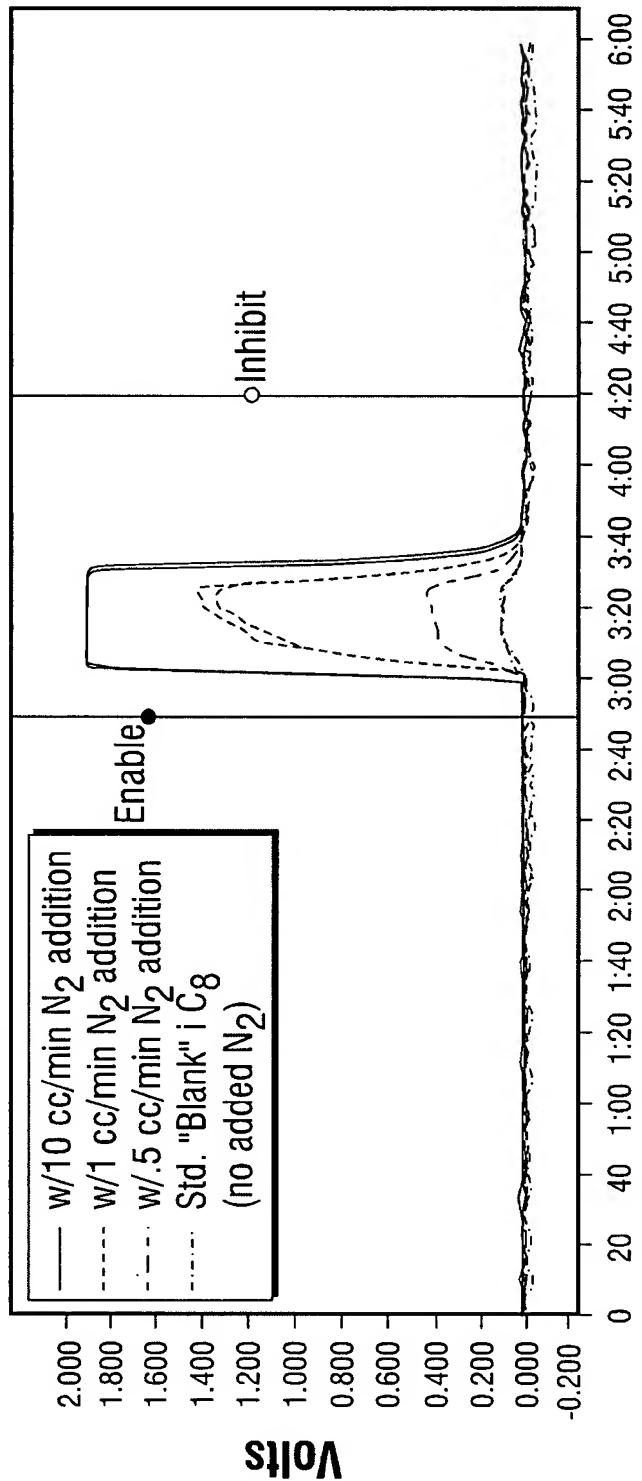
FIG. 4



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**Blank i-C<sub>8</sub> Samples vs. N<sub>2</sub> Added to Injector Gas Flow**

*Injection Comparison Plot*



**FIG. 5**



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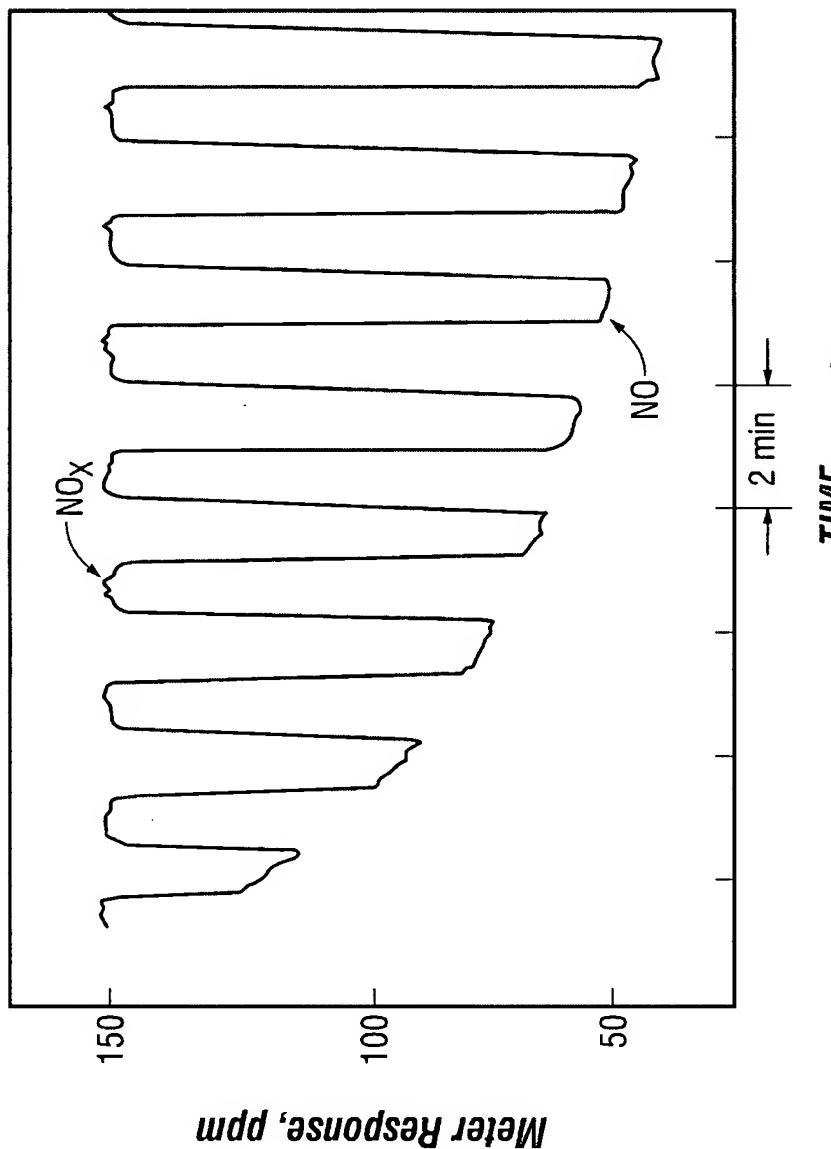
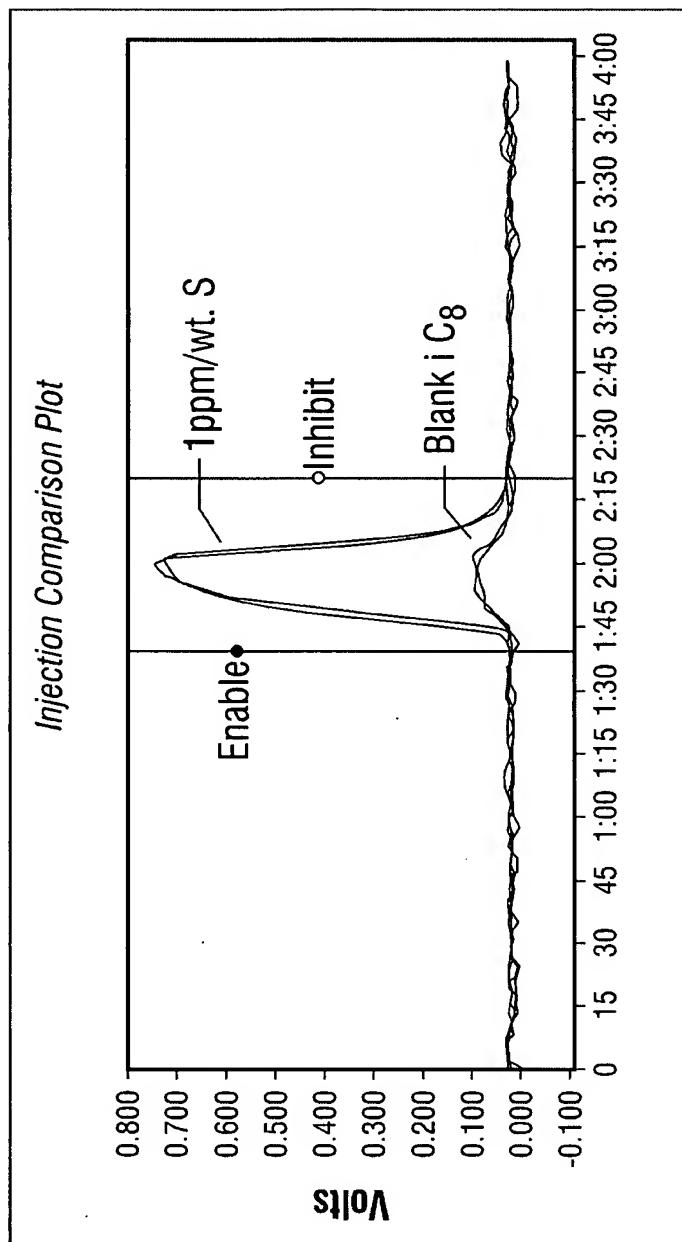


FIG. 6



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**Relative Response of "Blank" i-C<sub>8</sub> vs. 1ppm/wt.S in iC<sub>8</sub>  
w/ Present UV Fluorescence Configuration**



**FIG. 7A**



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Relative Response of "Blank" i-C<sub>8</sub> vs. 1ppm/wt.S in iC<sub>8</sub>  
W/ Ozone Addition

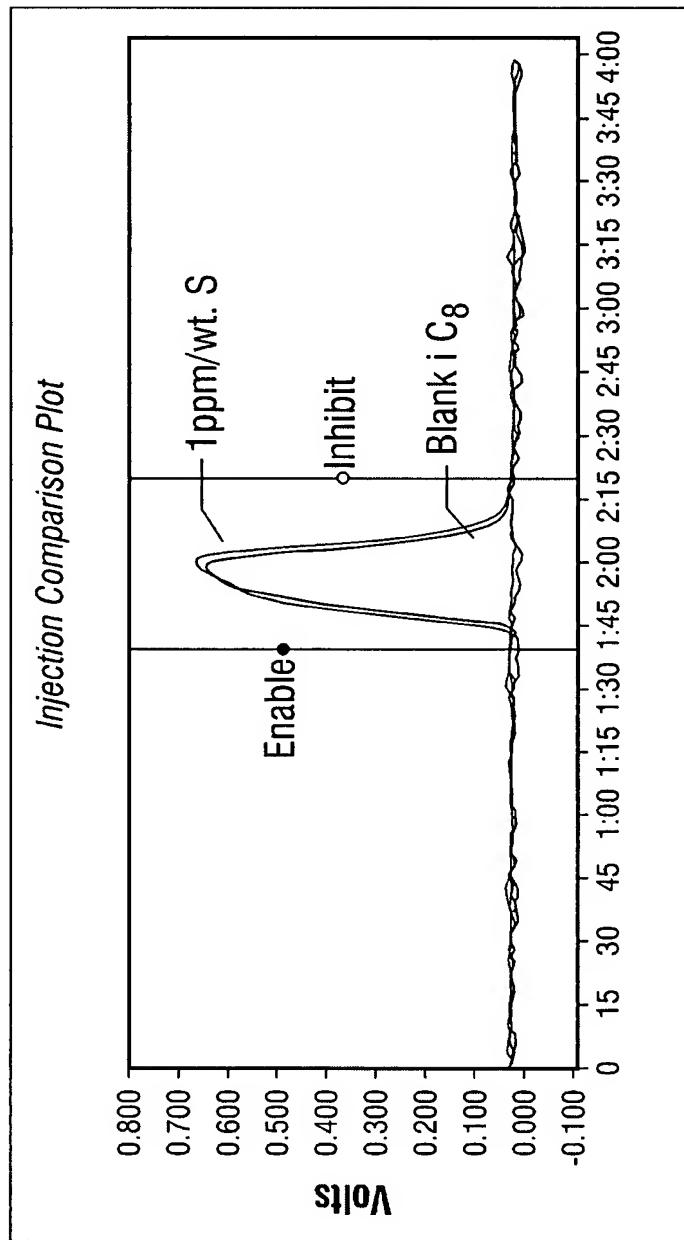


FIG. 7B



File Name: 03 addition.sam  
 Curr. Cal File: Interference.cal  
 Orig. Cal File: Interference.cal  
 Calibration based on: Total Counts  
 Blank Correction is: OFF  
 Comments: All Ozone (03) Addition = 1cc/min O2 with ATOMIC Prototype  
                   (Hv Transformer Primary @7vdc)  
                   All 50ppbS standards in Fisher i-C8  
 Version: 3.7.7 6/28/02

Name	Use S	SConc	SCnts	SSDev	S%RSD	Divider	Multiplier	Time	Date
Reidel +03	X	NaN	16.6	15.77	95.12				
Reidel +03.1	X	Inf	37.6			1.00	1.00	11:08 PM	4/23/03
Reidel +03.2	X	Inf	12.2			1.00	1.00	11:12 PM	4/23/03
Reidel +03.3	X	Inf	28.1			1.00	1.00	11:16 PM	4/23/03
Reidel +03.4	X	-Inf	0.9			1.00	1.00	11:20 PM	4/23/03
Reidel +03.5	X	-Inf	4.2			1.00	1.00	11:24 PM	4/23/03
50pb +03	X	Inf	355.9	81.09	22.79				
50pb +03.1	X	Inf	429.9			1.00	1.00	11:29 PM	4/23/03
50pb +03.2	X	Inf	442.9			1.00	1.00	11:33 PM	4/23/03
50pb +03.3	X	Inf	287.1			1.00	1.00	11:37 PM	4/23/03
50pb +03.4	X	Inf	263.5			1.00	1.00	11:41 PM	4/23/03
50pb +03.5	X	Inf	355.9			1.00	1.00	11:45 PM	4/23/03
Reidel +03	X	NaN	5.6	5.49	97.56				
Reidel +03.1	X	-Inf	0.0			1.00	1.00	12:03 PM	4/23/03
Reidel +03.2	X	-Inf	6.4			1.00	1.00	12:07 PM	4/23/03
Reidel +03.3	X	-Inf	5.1			1.00	1.00	12:11 PM	4/23/03

FIG. 8A



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Name	Use S	SConc	SCnts	SSDev	S%RSD	Divider	Multiplier	Time	Date
Reidel +03.4	X	-Inf	2.2			1.00	1.00	12:15 PM	4/23/03
Reidel +03.5	X	-Inf	14.4			1.00	1.00	12:19 PM	4/23/03
Fisher +03	X	NaN	18.3	15.49	84.65				
Fisher +03.1	X	Inf	28.6			1.00	1.00	12:24 PM	4/23/03
Fisher +03.2	X	-Inf	4.3			1.00	1.00	12:28 PM	4/23/03
Fisher +03.3	X	-Inf	0.0			1.00	1.00	12:32 PM	4/23/03
Fisher +03.4	X	Inf	35.6			1.00	1.00	12:36 PM	4/23/03
Fisher +03.5	X	Inf	23.0			1.00	1.00	12:40 PM	4/23/03
50ppb+03	X	Inf	352.9	46.42	13.16				
50ppb+03.1	X	Inf	313.8			1.00	1.00	12:45 PM	4/23/03
50ppb+03.2	X	Inf	317.1			1.00	1.00	12:49 PM	4/23/03
50ppb+03.3	X	Inf	337.3			1.00	1.00	12:53 PM	4/23/03
50ppb+03.4	X	Inf	370.6			1.00	1.00	12:57 PM	4/23/03
50ppb+03.5	X	Inf	425.4			1.00	1.00	1:01 PM	4/23/03
10pm+03	X	Inf	9816.3	118.67	1.21				
10pm+03.1	X	Inf	9657.6			1.00	1.00	1:21 PM	4/23/03
10pm+03.2	X	Inf	9871.8			1.00	1.00	1:25 PM	4/23/03
10pm+03.3	X	Inf	9761.8			1.00	1.00	1:29 PM	4/23/03
10pm+03.4	X	Inf	9815.8			1.00	1.00	1:33 PM	4/23/03
10pm+03.5	X	Inf	9974.7			1.00	1.00	1:37 PM	4/23/03
50ppb+03	X	Inf	332.7	71.52	21.50				
50ppb+03.1	X	Inf	245.3			1.00	1.00	1:43 PM	4/23/03
50ppb+03.2	X	Inf	363.7			1.00	1.00	1:47 PM	4/23/03
50ppb+03.3	X	Inf	270.8			1.00	1.00	1:51 PM	4/23/03
50ppb+03.4	X	Inf	414.5			1.00	1.00	1:55 PM	4/23/03
50ppb+03.5	X	Inf	369.2			1.00	1.00	1:59 PM	4/23/03

F/G. 8B



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Name	Use S	SConc	SCnts	SSDev	S%RSD	Divider	Multiplier	Time	Date
F-Nozone	X	Inf	963.5	48.85	5.07				
F-Nozone.1	X	Inf	960.1			1.00	1.00	2:29 PM	4/23/03
F-Nozone.2	X	Inf	919.6			1.00	1.00	2:33 PM	4/23/03
F-Nozone.3	X	Inf	917.3			1.00	1.00	2:37 PM	4/23/03
F-Nozone.4	X	Inf	1033.7			1.00	1.00	2:41 PM	4/23/03
F-Nozone.5	X	Inf	986.9			1.00	1.00	2:45 PM	4/23/03
50ppb Nozone	X	Inf	1212.0	127.80	10.54				
50ppb Nozone.1	X	Inf	1133.6			1.00	1.00	2:57 PM	4/23/03
50ppb Nozone.2	X	Inf	1378.7			1.00	1.00	3:01 PM	4/23/03
50ppb Nozone.3	X	Inf	1321.0			1.00	1.00	3:05 PM	4/23/03
50ppb Nozone.4	X	Inf	1107.7			1.00	1.00	3:09 PM	4/23/03
50ppb Nozone.5	X	Inf	1119.1			1.00	1.00	3:13 PM	4/23/03
1ppm- Nozone	X	Inf	11311.0	83.00	0.73				
1ppm- Nozone.1	X	Inf	112068			1.00	1.00	3:18 PM	4/23/03
1ppm- Nozone.2	X	Inf	11363.2			1.00	1.00	3:22 PM	4/23/03
1ppm- Nozone.3	X	Inf	11306.4			1.00	1.00	3:26 PM	4/23/03
1ppm- Nozone.4	X	Inf	11260.6			1.00	1.00	3:30 PM	4/23/03
1ppm- Nozone.5	X	Inf	11417.8			1.00	1.00	3:34 PM	4/23/03

F/G. 8C